

REMARKS

In the final Office Action, the Examiner rejected claims 9 and 59–66 under 35 U.S.C. § 103(a) as being unpatentable over Jpn. J. Appl. Phys., Vol. 31, pp. 2155-64 (1992) (“*Schadt*”) in view of U.S. Patent 5,464,669 (“*Kang*”).

Rejection under § 103(a)

To establish a *prima facie* case of obviousness under §103(a), each of three requirements must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine references or modify a reference. (MPEP § 2143 (8th ed. Rev. May 2004).) Second, there must be a reasonable expectation of success for the proposed combination. (*Id.*) Moreover, both of these requirements must “be found in the prior art, and not based on applicant’s disclosure.” (*Id.*) Third, the reference or references, taken alone or in combination, must disclose or suggest every element recited in the claims. (*Id.*) In this case, the Examiner has failed to present evidence establishing all three criteria. Applicants therefore traverse the rejection of claims 9 and 59–66.

The Examiner correctly acknowledges that *Schadt* fails to teach or suggest, “exposing said second alignment layer to light in an oblique direction, such that said second alignment layer has a pretilt angle and a pretilt direction associated therewith, the pretilt angle being controlled by photo-energy,” as recited in claim 9. (11/5/04 Office Action at 3.)

To compensate for this deficiency, the Examiner alleges that Fig. 2 of *Schadt* discloses exposing the alignment layer to light in oblique direction. Office Action, p. 3.

Applicants disagree. First, it is illogical for the Examiner to rely on a reference to overcome the acknowledged deficiency of that same reference. Moreover, contrary to the Examiner's allegation, Fig. 2 of *Schadt* apparently shows that the incidence angle of the UV light emitted from the lamp (Hg-LAMP) to the surface of the PVMC substrate is a right angle. Furthermore, *Schadt* is silent on whether this angle could be other than 90°.

The Examiner further alleges that "it would have been obvious to one skilled in the art at the time the invention was made to form a pretilt angle by exposing an alignment layer to light in oblique direction since it is notoriously well known in the art to form pretilt angles with different directions on such alignment." (11/5/04 Office Action at 3; 4/22/04 Office Action at 3.) Applicants requested that the Examiner either identify a reference supporting the allegation or provide an affidavit that it is within in the Examiner's knowledge. (7/9/04 Amendment at 6; MPEP 2144.03.) In response, the Examiner again relied on Fig. 2 of *Schadt* to support his position. (11/5/04 Office Action at 4.) However, for reasons already set forth in the above, Fig. 2 of *Schadt* fails to support the Examiner's allegation. No other reference has been proffered. Applicants therefore respectfully traverse the Examiner's allegation of obviousness.

In view of the above, *Schadt* fails to teach or suggest at least "exposing said second alignment layer to light in an oblique direction, such that said second alignment layer has a pretilt angle and a pretilt direction associated therewith, the pretilt angle being controlled by photo-energy," as recited in claim 9.

Moreover, *Kang* also fails to teach or suggest at least "exposing said second alignment layer to light in an oblique direction, such that said second alignment layer has a pretilt angle and a pretilt direction associated therewith, the pretilt angle being

controlled by photo-energy,” as recited in claim 9. *Amendment* of July 9, 2004, at 6.

Thus, *Schadt* in combination with *Kang* fails to teach or suggest each element of claim 9.

Additionally, *Kang* teaches away from being combined with *Schadt*. *Kang* discloses a method of forming an orientation film of photopolymer in an LCD. *Kang* identified three disadvantages to a previous method of mechanical rubbing. (*Kang*, col. 1, ll. 42–51.) *Kang* overcomes these and other problems in the prior art using a method that includes forming PVCN-F film on the surfaces of *two opposite substrates* and irradiating *both* PCVN-F films formed with linearly polarized UV lights with different energy for each film. (*Id.*, col. 2, ll. 26–31.) *Kang* only discloses disadvantages with mechanical rubbing, and there is no teaching or suggestion that would motivate one to combine *Kang*, which forms and irradiates PVCN-F film on the surfaces of *two opposite substrates*, with any reference that mechanically rubs one substrate. Thus, Applicants maintain that there is no motivation to combine *Kang* and *Schadt*, and, in fact, *Kang* teaches away from such a combination.

Since *Schadt* and *Kang* fail to disclose each claim element and there is no motivation to combine references, claim 9 is allowable over *Schadt* and *Kang*. Claims 59–66 should likewise be allowable at least because of the dependence of each from claim 9.

Applicants respectfully request that this Request for Reconsideration under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 9 and 59–66 in condition for allowance. Therefore, this Request for Reconsideration should allow for immediate action by the Examiner.

In view of the foregoing remarks, Applicants submit that this claimed invention is not rendered obvious in view of the references cited against this application. Applicants therefore request the entry of this Request for Reconsideration, the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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Dated: January 4, 2005

By: 

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* With limited recognition under 37 C.F.R. § 10.9(b).